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From concept to capability: Developing design thinking within a professional services firm

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Corporate business and management are embracing design thinking for its potential to deliver competitive advantage through helping them be more innovative, differentiate their brands, and bring more customer centric products and services to market (Brown, 2008). As consumers continue to expect more personalisation and customisation from their service providers, the use of design thinking for innovation within organisations is a logical progression. To date however, there is little empirical literature discussing how organisations are setting about integrating design thinking into their culture and innovation practices. This paper is a first step in initiating a scholarly discussion on the integration of design thinking within organisational culture.

Deloitte Australia is a large professional services firm employing over 5700 staff in 12 offices across Australia. The company provides a range of services to clients in the areas of audit, tax, financial advisory and consulting. In early 2011 the company made a strategic commitment to introducing design thinking into the organisation's practices. While it already maintains a strong innovation culture, to date it had largely been operating within an analytical business environment. For Deloitte, design thinking is an opportunity to create better outcomes for the people they serve – both internal and external stakeholders (Brown & Wyatt, 2010).

Research was conducted using case study methodology and ethnographic methods from June to September 2011 at the Melbourne Deloitte office. It involved three methods of data collection: semi structured interviews, participant observation and artifact analysis. This paper presents preliminary case study findings of Deloitte's approach to building awareness and a consistent understanding of design thinking, as well as large scale capability, across the firm. Deloitte's commitment to transforming its culture to one of design thinking poses significant potential for understanding how design thinking is comprehended, enabled and integrated within a complex organisational environment.

Keywords : design thinking; design thinking practice; design practice; organisations; organisational learning; organisational culture

Introduction

Corporate business and management are embracing design thinking for its potential to deliver competitive advantage through helping them be more innovative, differentiate their brands, and bring more customer centric products and services to market (Brown, 2008). As consumers continue to expect more personalisation and customisation from their service providers, the use of design thinking for innovation within organisations is a logical progression. Boland and Collopy (2004, p.xi) describe design thinking as crucially important for organisational leaders to create a 'humanly satisfying and sustainable future' for their business. To date however, there is little empirical literature discussing how organisations are setting about integrating design thinking into their culture and innovation practices. This paper explores the questions of:

- How is design thinking capability developed both individually and organisationally within a large complex organisation? and
- How is design thinking practice integrated into organisational work practices?

This is a first step in initiating a scholarly discussion on the integration of design thinking within organisational practice and culture.

This paper presents preliminary findings from a case study of Deloitte Australia's (Deloitte) adoption of the concept. It is generally accepted by Deloitte leadership that two basic levels of design thinking knowledge are required to commence the organisational transformation: an awareness and understanding of the concept; and first level capabilities to start applying design thinking to appropriate problems and projects. Capability development recognises the need to understand the complexity and holistic approach of design thinking, as well as the specific methods and skills required for successful execution. This paper will discuss some of the challenges and successes experienced at Deloitte in building awareness and developing capability programs amongst their professional staff that are primarily non design trained.

Design thinking in organisations

Design thinking emerged from the design methods movement (Jones, 1970; Buchanan, 1992), a stream of research focused on understanding the thought processes and methods behind design practice. Buchanan (1992) shifted the concept of design thinking from understanding how designers think, make decisions and solve problems to a more generalised concept where design thinking can be applied to anything, tangible object or intangible system (Kimbell, 2009). This moved the concept from a cognitive style toward an intellectual approach of problem framing and solving that acknowledged the social aspects of design work (Kimbell, 2009). While design thinking can be applied to any context, it is primarily associated with 'complex systems and environments for living, working, playing and learning' (Buchanan, 1992, p.10).

In the early 21st century, through proponents such as Brown (2008; Brown & Katz, 2009), and Martin (2009; Dunne & Martin, 2006), design thinking became situated in business and in particular in terms of a designerly approach to solve the challenges businesses are facing (Brown, 2008; Kimbell, 2011). From this the concept was adopted within management discourse and business schools (Kimbell, 2011). Martin (Dunne & Martin, 2006, p.512) describes it as 'approaching management problems as designers approach design problems'. In particular, corporate business and management began embracing design thinking for its potential to deliver competitive advantage through aiding innovation, differentiating their brand, and bringing products and services to market faster (Brown, 2008; Kimbell, 2011).

More recently, design thinking has begun to emphasise intangible design work outside of the 'traditional preoccupations of designers' (Kimbell, 2011, p.285) and it is increasingly gaining attention across a broad variety of contexts to resolve problems and make change happen. It is being used in business for strategy (Golsby-Smith, 2007; Holloway, 2009) and organisation redesign (Banathy, 1996; Georges & Romme, 2003; Jenkins, 2008); healthcare (Brown, 2008; Duncan & Breslin, 2009), social innovation (Bell, 2008; Brown & Wyatt, 2010) and education (IDEO & Riverdale Country School, 2011) for the purpose of fully understanding users and their problems before considering possible creative solutions.

Challenges of integrating design thinking in organisations

Brown & Wyatt (2010) position design thinking as an opportunity for organisations to create better outcomes for the people they serve. Within an organisation, design thinking recognizes that all employees, not just managers, co-create the social and collaborative processes that shape organisational systems and in so doing all have an equal stake in the organisation design (Banathy, 1996; Georges & Romme, 2003).

Brown & Wyatt (2010) admit there are many impediments to the adoption of design thinking within environments including take up by a select few; resistance to the human centred approach; or a failure to balance the perspectives of all stakeholders. Jenkins agrees discussing that in order for the successful integration of design thinking the underlying cultural values on which the organisation is based need to be reshaped and identifies the potential challenge of rebuilding some of the major organisational systems and corporate processes (Jenkins, 2008, p.20). This is not dissimilar to attempts to integrate other large scale concepts such as total quality management, agile development, or business process re-engineering into organisational work practices which are significant change initiatives and often take years to permeate companies. In regard to design thinking, there are few empirically documented cases of it being integrated into an organisation's practices and culture however it is increasingly recognised as being valuable at this level of complexity due to its human centred-ness and inbuilt engagement and participation.

Design thinking as a competency

Buchanan (1992) describes design thinking as a liberal art shared and used by all human beings in their daily lives but to varying degrees. This is echoed by Simon (1996, p.111) who believes design is a core human activity: 'Everyone designs who devises courses of action aimed at changing existing situations into preferred ones'. While all humans share this design capacity it is often overlooked for more conventional and traditional problem solving practices (Brown & Wyatt, 2010).

While often overlooked design thinking is also considered by some to be complementary to traditional decision making or analytical thinking. As Martin (Dunne & Martin, 2006) argues, while contemporary management education focuses on more traditional decision making and analytical thinking skills, adding design attitudes enhances innovativeness. Boland and Collopy (2004) agree where the design attitude is able to deal with uncertainty and ambiguity within problems, and a business attitude is suited for known stable problems. Owen (2007, p.22) discusses the value of this combination of a design attitude with a traditional business attitude as the 'best of skeptical inquiry into balance with imaginative application'. Leaders then need to be both designers and decision makers (Boland & Collopy, 2004; Kimbell, 2009).

While literature discusses the innate design capabilities and benefits of design thinking competencies there is little outside of higher education (for example Melles, 2010)

discussing how to learn or be trained in design thinking skills and practices. This paper seeks to act as a starting conversation for understanding how an organisation is introducing design thinking practices to the firm and building design thinking capabilities in non design trained professional staff.

Deloitte case study

Deloitte is a large professional services firm employing over 5700 staff in 12 offices across Australia. The company provides a range of services to clients in the areas of audit, tax, financial advisory and consulting. Design thinking was mentioned in various organisational documents, presentations and forums in late 2010. In early 2011 Deloitte made a strategic commitment to integrating design thinking into the organisation's work practices. While the organisation has a strong innovation culture, it has largely been operating within an analytical business environment that is now moving toward a culture of design thinking.

Deloitte views design thinking as an opportunity to reconceptualise the organisation as a flexible structure able to adapt to changing requirements – both internally for employees and externally with changing client expectations. In so doing their vision and strategic commitment is to redesign the experience of professional services for clients.

Michael Barry of Stanford University and Sarah Beckman from the Haas School of Business at Berkeley were engaged to commence introducing design thinking and building capability in the area. This resulted in a one week immersion program held in Sydney in April 2011, which consisted of a two day training boot camp for 120 staff followed by a three day intensive workshop for a subset of participants focusing on using a design thinking approach for six strategic projects. These three days essentially acted as a project kick off for these initiatives. This experience and Beckman and Barry's resources have formed the foundation for design thinking at Deloitte (for example Beckman & Barry, 2007). For the majority of Deloitte staff in attendance, which represents approximately just 2% of Deloitte's staff, this intensive one week immersion was their first exposure to and experience of design thinking. As a follow on to the design thinking immersion program, approximately 80 people have been using a design thinking approach to continue the work commenced in the immersion program on the six strategic initiatives. These internal projects range from redesigning internal processes, programs and communications to designing new business opportunities. Outside of these strategic initiatives, most notable were several projects in various service lines focused on how to build design thinking capability across teams and business units. Within these projects, immersion program participants took on champion roles, further developing design thinking understanding and capability within their respective service lines.

It should be noted that Deloitte has areas of its business, such as the Online and Deloitte Digital practices, where design thinking has implicitly been the dominant work practice for some time. With design thinking now at the fore, these teams have acted as champions for design thinking and provided springboards for further learning and adoption as other parts of the organisation became aware of their design practices and reach out for support and knowledge transfer.

Methodology

Data was collected from June to September 2011, commencing just two months after the immersion program while the company was still in its earliest initial stages of introducing

design thinking to the organisation. This consisted of 36 days on site across a 14 week period, totaling approximately 250 hours, at the Deloitte office in Melbourne.

Data collection was reliant upon access to appropriate participants and projects. Best efforts were made to gain a holistic perspective across the organisation of design thinking initiatives and to interview a diverse range of employees across service lines and at various hierarchical levels. Participants had diverse experiences and exposure to design thinking at Deloitte ranging from leaders of the six strategic initiatives utilising a design thinking approach; immersion program participants; employees who did not participate in the immersion program but were involved in various design thinking projects; and finally those with little to no exposure to design thinking in the organisation.

With a staff of near 6000 geographically dispersed across 12 offices this study represents a slice of organisational activity based on allowable access and timing. It utilised ethnographic methods and involved three types of data collection: participant observation, semi structured interviews, and artefact analysis. This paper will present preliminary findings from this case study.

Participant observation

The researcher acted as participant observer. This involved the researcher establishing a place, with permissible access, within the social landscape of the organisation with the purpose of acquiring knowledge to represent the social life and social processes that occur (Emerson, Fretz, & Shaw, 2001; Hammersley & Atkinson, 2007). In particular the researcher was involved in various stages of ten internal projects, all using a design thinking approach or focused on building design thinking capability programs. This also involved producing written accounts and descriptions of these settings in the form of field notes (Emerson et al., 2001).

Semi structured interviews

While participant observation represents the researcher's point of view, interviews represent participant perspectives. The semi structured interview was used due to its more informal nature and its allowance to ask new questions in response to interviewee insights (Charmaz, 2006). In total, 34 semi structured interviews were conducted using convenience sampling. As close as possible this did involve the selection of a representative sample across the organisation with people from a variety of roles, hierarchy and backgrounds as well as a balance between those who participated in the immersion program and those who did not. Interviews ranged from 20 to 70 minutes in duration and focused on understanding interviewee conceptions of design thinking, insights into Deloitte design thinking practices, and successes and challenges to date.

Artefact analysis

Lastly, organisational and project artefacts relating to design thinking were collected for analysis. This included emails, presentations, documents and conversations on internal social networking sites. As a result analysing documentary sources and artefacts provides a third perspective to assist in a meaningful and credible construction of the setting being studied (Hammersley & Atkinson, 2007).

Data Analysis

All interviews were transcribed, artefacts and field notes analysed and subject to content analysis through the constant comparative method (Glaser & Strauss, 1967). The analysis was conducted systematically and occurred in three stages, each time iteratively synthesising data until categories reached sufficient meaning.

The purpose was not to compare data across methods but to bring data together to develop a critical account of design thinking practice. As a result, data is presented as an integrated whole to retain context, rather than separated into individual collections in which meaning and context may be limited. The following represents preliminary findings and discussion emerging from the initial data analysis and synthesis of the participant observation, semi structured interviews and artefact analysis.

The challenges of moving from concept to capability

Preliminary findings indicate three inter-related and interdependent themes for integrating design thinking into Deloitte's culture and every day work practices. To commence with is the need to develop the concept of design thinking, what it means for the organisation and how it fits within existing practices. Secondly is the need to develop design thinking capability both at an individual skill level as well as how to scale this across the organisation. Finally is the need for developing design thinking practice through providing adequate training and learning experiences with appropriate expertise and support. Through addressing these challenges, design thinking has the opportunity to become integrated into the every day practices of the organisation with high quality execution.

Developing the concept of design thinking

For Deloitte, creating a consistent story for what design thinking means to the firm and where it fits into current practices is the first step in developing design thinking within the company.

Design thinking as 'innovative innovation'

Design thinking at Deloitte is viewed as the next evolution of innovation with a customer centric approach. Participant 5 (Interview, 6 July) confirmed this in an interview stating: 'it (design thinking) was to reenergise the innovation' (sic). This was further supported in a presentation to senior leaders where Participant 5 said: '...design thinking is a catalyst to accelerate and amplify innovation but to do it in a different way...design thinking is innovative innovation' (Artefact A). Deloitte already has a solid foundation of innovation within the company and through this has fostered a culture of openness and creativity, which the researcher observed, aiding the organisational readiness to accept a new approach like design thinking.

The ubiquity of design thinking as concept

The concept of design thinking at Deloitte is ubiquitous. In the three months of participant observation, the researcher did not meet one employee who had not heard of nor have an opinion about design thinking. This was the result of a purposeful act by senior leaders: 'we had a choice we either do the typical let's constrain and create a bottle neck. We said let's allow it to go viral... Where we are now is everybody is actually doing a little bit of design thinking and they have a lot of fun with it – some effective, some less effective' (Participant 5 interview, 6 July). This was seen to be one of the successes of introducing design thinking to the company so far: '...the success is that everyone's talking about it and everyone wants to be involved' (Participant 21 interview, 31 August). One reason for this is that from an employee perspective it is recognised as being 'a good thing to be attached to' (Field notes, 18 August). The overall vision for design thinking at Deloitte is for it to be integrated into the everyday practices of the organisation as Participant 5 stated: 'The hypothesis that we are working on is that design thinking will become a way of thinking for our organisation' (Interview, 12 September).

Its ubiquity however has not necessarily translated to understanding or capability. As Participant 6 states 'I think a lot of people started getting it rather than get it...I don't think

we have much evidence that anyone's really got it yet. I think what we are is making progress towards it. What worries me is that a lot of people are starting to claim to have got it when I think they are at design thinking 101 at the very best' (Interview, 6 July). This was also evident in other interviews where participants raised concerns about people using the term 'design thinking' as a verb (Informal conversation with participant 4, Field notes 10 August).

Finding where design thinking fits with other methodologies

As Deloitte is a professional services firm, the consultants already use a variety of methodologies and frameworks to aid in their day to day client engagements. As a result, understanding the place for design thinking within this is a challenge. Questions around how it fitted in with current practices abounded such as: Is it supposed to replace other methodologies? When is design thinking fit for purpose? How is it different from other methodologies? What are the benefits in using design thinking over other approaches? (Field notes, 18 August and 12 September). The researcher observed a workshop of eight participants where half the people in the room had gone through the immersion program and the other half hadn't. Those who had could not articulate answers to these questions or sell the value of a design thinking approach to others (Field notes, 18 August). This demonstrates the level of complexity in understanding design thinking compared with being an agent for design thinking - being able to execute it in practice and teach others. Developing individual and organizational capability then is of core importance.

Developing design thinking capability

Developing design thinking capability in this case involves evolving the concept of consultant from this more expert approach to one of collaborating and co-designing with clients at an organisational level as well as skill development at an individual level.

From expert to collaborator

Deloitte consultants do not work in a model 100% of the time where they come to a client as experts and dictate solutions. A key aspect to their consulting methodologies is to immerse themselves in the client's business problem, understand the stakeholders and the environment and craft a solution specific to their needs, somewhat akin to aspects of design thinking. However to date in most cases Deloitte is still accustomed to positioning themselves as the expert to solve client problems (Participant 21 interview, 31 August) whereas design thinking requires evolving the meaning of consultant in the organization; moving it from expert to collaborator and co-creator. However, many of the skills required for this shift to design thinking do not come naturally to the consultants. At present, the organisation does not naturally ask why, explore problems in depth or iterate solutions (Participant 21 interview, 31 August; Field notes 18 August).

Design thinking skills

At an individual level many did not recognize that design thinking required new skills or the existing skills but approached and executed in a different way (Researcher in Participant 5 interview, 12 September; Field notes, 12 September). This was particularly evident in ethnographic interviews, reframing problems, developing insights and prototyping and iteration (Field notes, 10 August). For example as participant observer, the researcher assisted in the development of ethnographic interview questions for a project. The original interview questions spanned six pages, resembling a survey questionnaire (Artefact B; Field notes, 4 July). While as consultants the practice of interviewing is normal, understanding different types of interviews and in this case how to conduct an ethnographic interview was an unfamiliar skill for many.

The concerns of the inexperienced expert

It also emerged that participants of the immersion program were perceived by many non participants to be experts in design thinking and 'part of an elitist club' (Field notes, 18 August). Similarly, several immersion program participants discussed feeling this pressure to be experts, to advocate and teach design thinking to other employees and sell it to clients however recognising their own limited training and knowledge in the area and expressing discomfort in this elevated status (Field notes, 18 August).

Relatedly, in regard to developing design thinking capability across the firm, some participants expressed concern of having 'untrained design thinkers...designing design thinking training for others' (Field notes, 8 August) and the implications of this that design thinking may be diluted, misunderstood and misappropriated within the organisation (Field notes, 8 August). Indeed, the researcher observed that design thinking capability development responsibilities were being allocated to several employees across the company primarily based on role rather than knowledge of design thinking. There was no discrimination between those who had participated in the immersion program and those who had not. This inexperienced expert notion also has implications for developing design thinking practice.

Developing design thinking practice

It emerged from the data that design thinking as a concept was easily comprehensible however in practice was incredibly challenging and required considerable support and training to execute it successfully. As stated by Participant 5: 'The whole thing in design thinking is practice, practice, practice...because the ability to move between empathy, creativity and rationality doesn't come easily' (Artefact A; Field notes, 22 August). Participant 5 also went on to discuss design thinking as 'experiential learning' (Artefact A; Field notes, 22 August). This sense of learning design thinking through practice and experience was echoed throughout the data collection (Field notes, 10 August). This indicates that learning the practice of design thinking requires significant time, action learning and a range of methods and tools to draw upon.

Design thinking and training

In the majority of interviews conducted, when faced with the question of what would participants like to happen next at Deloitte with design thinking the answer almost unanimously involved either wanting some training or more training in applying design thinking; and in particular how to apply it to their day to day work. This was echoed both by those who had experienced the immersion program and those yet to receive any training.

Many of those who had been through the immersion program had found themselves either leading or playing key roles in initiatives using a design thinking approach across the organisation. Some interviewees indicated it had been several months since the immersion program and now they were applying design thinking to specific problems they would like to go through more training again while they were experiencing the complexity of practice (Participant 25 interview, 15 August; Field notes, 18 August; Researcher in Participant 5 interview, 12 September). There was a sense from these participants that they were aware their execution was poor but were unsure how to go about improving it. The additional or refresher training to support them through the process would allow them to remember their learned skills and apply it better in practice.

The researcher worked with Participant 20, responsible for designing and executing a design thinking awareness and skill development program for their business unit of approximately 40 people, which resulted in the development of two three-hour

workshops. The first workshop had 37 staff in attendance and focused on understanding design thinking through completing the 'Wallet Project' (Ford, 2009), interspersed with skill development activities to assist in completing each step. The second workshop, with 22 attendees, focused on teaching new tools and techniques but applying these to a real client problem. Participant 20 conducted feedback surveys after each workshop. Many at the conclusion of both workshops said they would still not feel comfortable applying any of the techniques learned to a client project (Field notes, 24 August; Field notes, 7 September). Feedback also indicated that participants found the second workshop focusing on a real complex client problem much more challenging than applying it to a simple problem such as to a wallet design for one individual (Field notes, 7 September). One participant in the feedback survey commented it was 'because working on a client problem it required significant understanding of the client and their need, and the context of the problem, and the need to draw on their consulting skills as well in order to pull it all together' (From conversation with Participant 20, Field notes, 7 September). Lastly, feedback revealed that after the second workshop participants still did not feel confident to take it to a real client as a proposition and also how then they might work with the client to use a design thinking approach. Even though they had applied it to a real world case they then wanted further training to know how to execute a project using a design thinking approach from start to finish on a client engagement (Field notes, 7 September). This indicates a slow building up of skills and confidence through experiential learning rather than a simple learn and then apply situation. This recognised design thinking is partly an education process as Dym et al (2006, p.112) states 'design is both a mechanism for learning and in itself a learning process'.

Supporting design thinking practice

Despite this spoken desire for training, it emerged that training alone is insufficient. Along with training, many participants involved directly in design thinking initiatives indicated the need for more expert guidance and support to assist through the process with evidence of significant frustration from many in various stages of their projects. Participant 41 discussed needing thought leaders and experts to help build their capability (Field notes, 18 August). Participant 41 followed by discussing that after the five day immersion program they were told to go forward and use design thinking but with no additional resources, tools and no support (Field notes, 18 August). At this stage, Deloitte had little variance in the levels of design thinking capability amongst staff and as such there was little expert support available, except to refer back to the academics that led the immersion program.

As an attempt to resolve this, several participants raised the need for professional facilitation of projects. Participant 27 and Participant 42 see a place for design thinking facilitators and project managers to be employed by the company to help people move through the process more efficiently and at a higher quality (Field notes, August 10; Field note, 18 August). There was as definite sense they didn't want someone else to do it for them but instead with them (Researcher in Participant 5 interview, 12 September). Beckman & Barry (2007) acknowledge this within their research that teams with someone to move them through the innovation process outperformed others. The need for a stepped approach to design thinking skill and practice supported through coaching or mentoring with people more experienced in design thinking emerged as a potential model for developing organisational design thinking capability.

Conclusion

The preliminary findings of this Deloitte case study provide an indication of the complexities of introducing the practice of design thinking into a company and building

firm wide capability in the area. The three themes discussed in this paper of developing an understanding and consistent design thinking concept, capability and practice is an important consideration when embarking on integrating design thinking within an organisation. These findings also illuminate the need for this to occur both at an individual and organisational level.

From these initial findings it can be surmised that developing design thinking capability and being able to execute in practice requires a sustained program – beyond simply workshops - comprising both skill development and experiential learning with the support of experience and practiced design thinking professionals. While comprehending the concept of design thinking was seemingly easy for participants, execution was complex and messy, especially outside of structured directive workshop environments. With participants being primarily non-design trained professionals within a heavily analytical environment, the need for adequate design thinking expertise and support was highlighted to aid the development and quality of practice.

In addition, it reflects the need for design thinking to be integrated into organisational practices and culture if it is to be adopted and successful at the firm wide level. As such integrating design thinking practice into an organization requires long term commitment to enable the required personal and organisational capability development and cultural transformation.

For Deloitte, design thinking is an opportunity to create better outcomes for the people they serve – both internal and external stakeholders (Brown & Wyatt, 2010). This paper discussing Deloitte's commitment to transforming its culture to one of design thinking contributes to the literature through its focus on understanding how design thinking is comprehended, enabled and integrated within a complex organisational environment. It also provides insights into the challenges of non-design trained professionals learning design thinking within a primarily analytical corporate work environment. As this represents preliminary findings of one case study however, this research has several limitations. Foremost, it represents a snapshot in time of the firm who were still in their first six months of introducing design thinking into the organisation and as such reflects only the first change initiatives. Additionally, further research is needed to determine if these challenges are transferrable to other organisations and environments introducing similar initiatives.

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Author Biography

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